

What's in Your Student Toolbox for Success?

Teaching **ALL** Students Organization Skills, Inquiry Skills & Effective Ways to Collaborate



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Utica Community Schools

Special Populations Conference

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Workshop Objectives

Content Objectives

- **Prepare** ALL students in note-taking and organization strategies
- **Identify** the main components of a higher-level questioning classroom
- **Explore** implementation of a unique student-driven inquiry & collaboration model


What does college ready mean?

By yourself...think about this idea...

What does it mean to be College Ready?


1 minute
Quickwrite:

College Ready








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What Does College and Career Readiness Mean?

Now, more than ever, high school students are told they must be prepared for higher education or a skilled profession in the workplace. Despite these messages advocating the need to be college and career ready, many parents, students, and educators remain unclear on what "college and career readiness" actually means.




Let's clear up the mystery -

College Ready [Kol-ij Red-ee] – *noun*. A College Ready student is an academically prepared student, ready for postsecondary education or training without the need for remedial coursework. Whether you are pursuing a four-year degree or studying for a skilled trade license, being ready means having the reading, writing, mathematics, social, and cognitive skills to qualify for and succeed in the academic program of your choice.

Career Ready [Kuh-reer Red-ee] – *noun*. A Career Ready student possesses both the necessary knowledge and technical skills needed for employment in their desired career field. For example, a student who is ready to become a teacher not only possesses knowledge of education policy, but also possesses all required certifications required to become a teacher.

Ultimately, college and career readiness demands students know more than just content, but demonstrate that they know how to learn and build upon that content to solve problems. They must develop versatile communication skills, work collaboratively and work competitively in a school or work environment. Ensuring that you possess both the academic and technical know-how necessary for a career beyond the classroom is a great step toward succeeding on whatever path you choose.



MICHIGAN
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Education

<http://osse.dc.gov/service/what-does-college-and-career-readiness-mean>

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Room 213 at Jeannette Jr. High



Student Organization

- One binder system
 - Agenda
 - Supply pouch with pens, pencils, highlighters, calculator, sticky notes
 - Dividers for each class/subject
 - Cornell notes
 - Goals



Why One Binder?

- Making the transition is difficult at first...
- EVERYTHING is in ONE place
- Efficient and easy to monitor
- Short-term & long-term effects

Organizing & Note-taking

- Turn to an elbow partner and discuss:
 - What type of note-taking skills were you taught in school? Did they contribute to your success? If no skills were taught, how did you learn to take notes?



Why Cornell Notes?

- Good notes allow students to help each other **problem solve**.
- Cornell notes stimulate **critical thinking**.
- Good notes help students **organize and process data** and information.
- Good notes help students **recall** when revisited multiple times.

The Cornell Way

10 Steps of the CORNELL WAY

I. NOTE-TAKING:		
Reading or hearing information for the first time while jotting down and organizing key points to be used later as a learning tool.		
C	Create Format	Step 1: <i>Create</i> Cornell notes format and complete heading
O	Organize Notes	Step 2: <i>Organize</i> notes on right side
II. NOTE-MAKING:		
Within 24 hours of having taken the notes, revise these notes, generate questions, and use collaboration to create meaning.		
R	Review and Revise	Step 3: <i>Review and revise</i> notes
N	Note Key Ideas	Step 4: <i>Note</i> key ideas to create questions
E	Exchange Ideas	Step 5: <i>Exchange</i> ideas by collaborating
III. NOTE-INTERACTING:		
Interact with notes taken by creating a synthesized summary. Use Cornell notes as a learning tool to increase content class achievement.		
L	Link Learning	Step 6: Link learning to create a synthesized summary
L	Learning Tool	Step 7: Use completed Cornell notes as a <i>learning tool</i>
IV. NOTE-REFLECTING:		
Use written feedback to address areas of challenge by setting focus goals to improve future notes. The Cornell Note Reflective Log Handout provides the opportunity to reflect on the notes and the learning.		
W	Written Feedback	Step 8: Provide <i>written</i> feedback
A	Address Feedback	Step 9: <i>Address</i> written feedback
Y	Your Reflection	Step 10: Reflect on <i>your</i> learning

Setting Up Your Paper

Topic

Questions,
Subtitles,
Headings,
Etc.

First & Last Name

Class Title

Period

Date

Class Notes

← 2 1/2" →

3 to 4 sentence summary across
the bottom of the **last page** of the
day's notes

How to Take Notes

Helping Students Learn the Cornell Style

Getting students comfortable with Cornell notes includes familiarizing students with the format. The chart below explains the placement of material on a page of notes.

Class _____
Topic _____
Source (lecture, book) _____
Date _____

Questions/Main Ideas

Develop questions about the information in the right hand column within 8 hours of taking notes on a lecture or from a book

Anticipate what someone might ask about the information in the note column

Identify key words and phrases from the right hand column

Mark or highlight questions that should be asked of the teacher, tutor or other students

Review notes regularly

Use notes as Study Guides

Summarize the note material
Notes

When taking notes during class or while reading a book, write in the right hand column

Write in phrases

Write quickly but legibly

Develop an abbreviation system

Leave space between ideas

Leave space for any information missed that can be filled in later

Be selective; don't write verbatim what is said or read

Look for organization of a lecture or book; number or organize information accordingly

Underline important information

Review and revise notes: add/delete information, clarify, organization, swap notes with other students to ensure full coverage of material, highlight and write symbols to indicate important information, add diagrams or cross reference

Cover the right hand column; recite or write out the answers to the questions in the left hand column; check answers with notes and find answers to any new questions

At the bottom of the page, write a summary of the notes

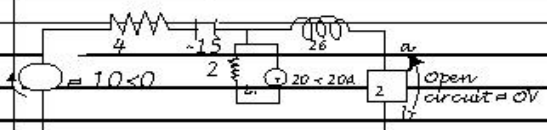
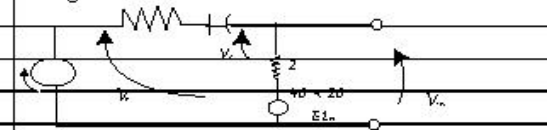
Cornell Note Examples

John Q. Student
Biology 101
April 1, 2000

Phylum	Arthropods
subphylum	Chelicerata
Chelicerata	2 parts: <ul style="list-style-type: none"> prosoma (first pair of appendages are for feeding) opisthoma
examples	scorpions, spiders, mites, ticks
Prosoma & Opisthoma	sensory, feeding, and locomotor tagma
Chelicerae	<ul style="list-style-type: none"> pincerlike or chelate used for feeding first pair of appendages
Pedipalps	<ul style="list-style-type: none"> second pair of appendages used for sensory purposes
	<div style="display: flex; justify-content: space-around;"> feeding locomotion reproduction </div>

Phylum arthropods is made up of subphylum chelicerata. Subphylum chelicerata is characterized by two parts called prosoma and opisthoma. The prosoma and cephalothorax are sensory, feeding, and locomotor tagma. The chelicerae is the first appendage and refers to the pincerlike. The pedipalps are the 2nd pair of appendages, and they are used for sensory purposes: feeding, locomotion, and reproduction.

Cornell Note Examples

Sample Cornell Notes: Example II		
10/02/2000		pg. 1
Questions	A. 3 Ways to solve thevenin's equation	
1.) Name the three formulas for solving thevenin's theorem?	1. Without dependent sources:	
	 <p>Fig. F1</p>	
2) In fig. F1, which source is removed for proper solving procedures?	 <p>Fig. F1</p>	
E_1 , I_{R1} , Z_1 ?	$10 < 0$ E_1	
3) V_{th} is across which closed loop source?	$V_a = (10 < 0 + 40 < 20) \sim (E)_{int}(E)$ $V_2 = V_a$	
4) V_a = what two sources in Fig. F1?	$W_a = (10 < 0 + 40 < 20)$	
5) What is the formula for V_{th} ?	$V_a = (0 \ 0 + 40 \ 20)$	
	$V_{th} = V_2 \sim 40 \ 20 = \sim 3.75 \sim J \ 1.37$ $= \sim 30.47 \sim J \ 3.188V$	
6) What is the formula for Z_{th} ?	2. 2th from (Mesh analysis)	

Costa's Levels of Inquiry

“The goal of the inquiry method is to help students become **more aware** of the range of problem-solving and critical-thinking behaviors available to them and to **improve their ability** to apply these behaviors when they are confronted with a problem to which they have no ready answer.” Art Costa

The levels of Questions

1. Describe this item.
2. Compare this item to its present-day family member.
3. Thinking about the changes made in the past 20 years with this item, imagine what the item will be used for in 20 years from now.



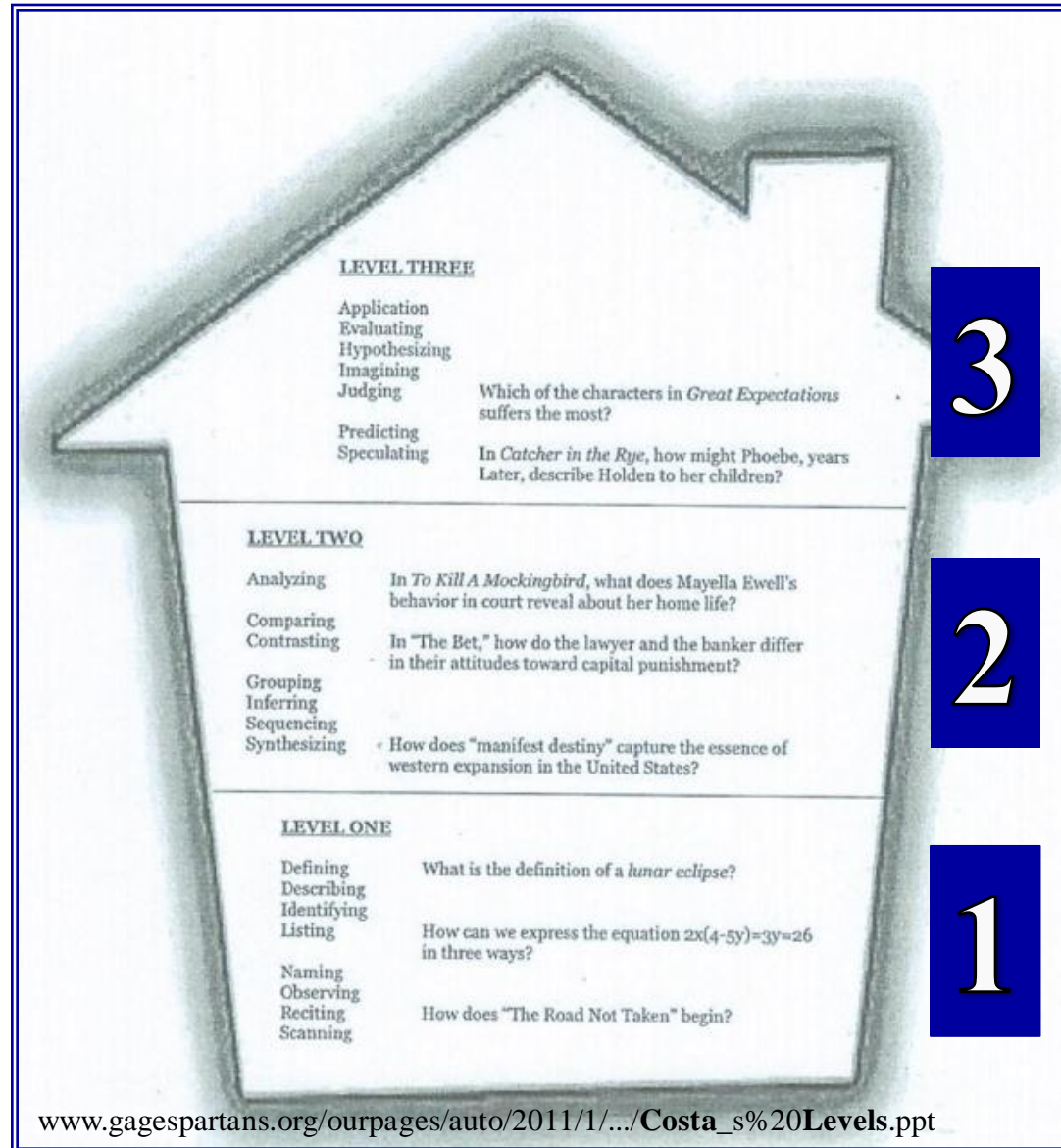
Why Use Inquiry as a Teaching Methodology?

- Standardized tests have an increasing focus on analysis, synthesis and evaluation.
- With high stakes testing, inquiry strategies become critical aspects of instruction.

Historically, state and national surveys indicate that approximately 80% of the questions K-12th grade students are exposed to are *lower-level questions*

In college this trend reverses, and students are asked to deal primarily with *high-level critical questions*.

Costa's 3-Level House



Marzano's Levels of Questioning

Marzano Questioning Fact Sheet

Level of Thinking Skill	Processes Involved	Verbs Involved	Question Stems to Use
Knowing	<ul style="list-style-type: none"> • focusing on needed information • defining the problem • setting goals for solving problems • obtaining information through the senses • formulating questions for inquiry • storing information in long-term memory • recalling information from long-term memory 	<ul style="list-style-type: none"> • categorize • group • classify • compare • contrast 	<ul style="list-style-type: none"> • Who did ____? • When was ____? • What is ____? • Identify the ____ in the ____. • Describe ____ • Which ____ best defines ____? • Which ____ is characteristic of ____? • Which ____ is an example of ____?
Organizing	<ul style="list-style-type: none"> • comparison – noting similarities and differences • classifying – grouping and labeling entities • ordering – sequencing entities by a criterion • representing – changing the form but not the substance of information 	<ul style="list-style-type: none"> • categorize • group • classify • compare • contrast 	<ul style="list-style-type: none"> • Categorize ____ according to ____. • Classify ____ according to ____. • How is ____ alike or different from ____? • What is most (or least) important about ____? • In your own words, tell ____.
Applying	<ul style="list-style-type: none"> • using information for practical purposes • demonstrating prior knowledge within a new situation • bringing together appropriate information for problems • using generalizations to solve problems 	<ul style="list-style-type: none"> • apply • make • show • record • construct • demonstrate • illustrate 	<ul style="list-style-type: none"> • Give some instance which ____? • How is ____ related to ____? • How is ____ an example of ____? • How would you use this information? • What do you need to solve this problem? • What are possible solutions to ____?
Analyzing	<ul style="list-style-type: none"> • clarifying information by studying parts and relationships • identifying attributes and components • determining the characteristics of an entity • identifying relationships and patterns • identify the main idea or central element • establishing the hierarchy of key ideas • identifying errors and logical fallacies 	<ul style="list-style-type: none"> • outline • diagram • differentiate • analyze 	<ul style="list-style-type: none"> • What are the attributes of ____? • What evidence can you list for ____? • What are the components, parts or features of ____? • What patterns or relationships do you see in ____? • Outline, web, or diagram ____? • What are the main ideas ____? • What can be concluded about ____?

Marzano's Questioning cont...

Generating	<ul style="list-style-type: none"> producing new information, meaning, or ideas inferring – going beyond available information predicting – anticipating next events or outcomes elaborating – explaining by adding additional details, examples, or other relevant information 	<ul style="list-style-type: none"> conclude predict infer explain elaborate 	<ul style="list-style-type: none"> How many ways can you think of to ____? What would happen if ____? Predict what would be true if ____. How can you explain ____? Elaborate about ____? What would you predict/infer from ____? What solutions would you suggest for ____? If you were ____, how would you have ____?
Integrating	<ul style="list-style-type: none"> connecting and combining information summarizing – restructuring information efficiently restructuring – changing existing knowledge structures to incorporate new information 	<ul style="list-style-type: none"> combine summarize design imagine generalize 	<ul style="list-style-type: none"> Devise a plan ____. Summarize ____. How many ways can you think of to ____? Conclude what the result would be if ____. What generalizations can you make? If you could pull this all together in 3-4 sentences, what you would say?
Evaluating	<ul style="list-style-type: none"> assessing the reasonableness and quality of ideas establishing criteria for judging verifying the accuracy of claims 	<ul style="list-style-type: none"> judge evaluate rate verify assess define criteria 	<ul style="list-style-type: none"> What do you think about ____? Why? Which ____ is most significant and why? What are your sources? How do you know they are credible? Did you detect any biases? Judge what would be the best way to ____ What criteria did you use? What is your point of view about this? Are there other points of view about this? How effective was ____?

Level 1 Questions

- Require you to do; like define or describe things and events.
- There is only one answer to these questions and the information can be found by opening up a book.

Level 1 Question Examples



1. What animal is in the picture?
2. What is a pig?

Level 2 Questions

- Require the students to compare and contrast, make inferences, synthesize, sequence, and analyze basic Level 1 information
- Have “book + your brain” answers.

Level 2 Question Examples



1. What does this picture tell you about a pig's hygiene?
2. Why would a pig be rolling in a mud hole like this?

Level 3 Questions

- Students apply and evaluate the information. One takes the information and decides what is right and wrong about it and what would happen if you changed something about it.
- You are asking “what if” questions.
- Questions include key words like apply, evaluate, hypothesize, judge, predict, and speculate.

Level 3 Question Examples



1. Predict what would happen if another pig tried to join this one?
2. What other facts would one use to prove whether pigs sweat or not?
3. Rewrite the story of the pig that never left this mud hole. ➡

Collaboration in Room 213

- Student-driven groups meet Tuesday's & Thursday's (college tutors act as guides through the inquiry process).
- Student's prepare an individual "lesson plan" at home, based on a question from homework, class lecture, Cornell notes, a reading, etc.
- Student's present their "lesson plan" until "stuck in the mud".

Student “Lesson Plan” (TRF)

Subject: Standard/Essential Question:			Name: Date:		
Pre-work Inquiry /12	Resources Used during tut. /1	Collaborative Inquiry /2	Cornell Note- Taking during tut. /3	Reflection /7	Total /25
Initial question:			Source, page# & problem #: _____		
			/1		
Key academic vocabulary/definitions associated with topic/question:					
1.					
2.					
/2					
What I already know about my question:					
1.					
2.					
/2					
SHOW as much work as you can:			TELL the steps you took in the SHOW section:		
/3			/2		
Question from point of confusion:					
/2					

The Process

- 30-second speech about pre-work
- Group members ask guiding questions & guide student presenter through critical thinking process
- All students take Cornell notes/three-column notes
- Check for understanding as student presenter reviews the work and steps taken to solve the problem/question
- Each student writes a reflection based on their learning and understanding

Organizing, Inquiry & Collaboration in Motion

**If you were coaching the tutor,
student presenter and group
member, what positives would
you want to reinforce and what
coaching feedback would you
provide for improvement?**

What is our end goal?



Thank you from Room 213 @ Jeannette Jr. High



Ruiz AVID Class 2011-2014

Questions & Contact Information

Questions?

If you have any further questions or
you are “stuck in the mud” please
contact me at:

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